

**I claim:**

**1. A liquid seal means comprising:**

- (a) a bent tube of U shape, such U-tube having one arm connected to the pipe collecting all the vented gas released from the plant, and other arm connected to a liquid holder;
  - (b) a piping, fitted with a non-return valve, connecting the bottom of the liquid holder to the bottom of the U-tube;
  - (c) the top of the liquid holder connected to the piping leading to the flare stack;
- wherein there is provided a piping connecting the tip of one arm of the U-tube to the pipe connecting top of the liquid holder; the U-tube and the liquid holder forming a structure so as to form the only passage available for the gas to escape from the plant to the flare stack; such gas escaping from the plant to the flare only when the liquid in the said U-tube has been completely displaced into the liquid holder due to the pressure applied by such escaping gas.

**2. A device including the liquid seal means as claimed in a Claims 1 comprising of:**

- (a) a pipe means collecting all the gas vented from across the plant process carrying the said gas to knock out drum (KOD) means;
- (b) a liquid seal means and piping blind means installed between the said KOD means and a flare stack means;
- (c) a pipe means originating from between the said KOD means and the said liquid seal means carrying the gas to a recovery system means;
- (d) a pipe means collecting all the gas vented from across the second process and carrying such gas to a second KOD means;
- (e) a second liquid seal means and piping blind means installed between the said second KOD means and a second flaring means;
- (f) a second pipe means originating from between the said second KOD means and the second liquid seal means carrying the gas to the recovery means; such second pipe means provided with a orifice to control the flow of gas from within it to the said recovery means.

**3. A liquid seal means as claimed in claim 2 wherein the said second liquid seal means is capable of withstanding higher pressure than the said first liquid seal means.**

**4. A liquid seal means as claimed in claim 2 wherein there is a unitary gas recovery means for plurality of flaring systems.**

